KONOPLYANTSEV, A.A.; SEMENOV, S.M.; GOLUB', A.G.; KARATLUYEVA, S.S.

Regionalization of the northern slope of the Trans-Ili Alatau and the alluvial Ili Depression adjacent to it according to the characteristics of the regime of ground waters. Trudy VSEGINGEO no.10:139-151 '64.

(MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii.

MITOV,G.; VELICKOV,V.; STEFANOVA,Z.; NINOV,N.; KAPRELIAN, G.;PANAIOTOV, P.

On the problem of the effectiveness of live polio vaccine and
the eradication of poliomyelitis in Bulgaria. Nauch. tr. vissh.
med. inst. Sofiia 43 no.4:33-37 '64

1. Chair of Microbiology and Virology (Director: Prof. Sv.
Bardarov).

KAPRELYAN, N.G.

At the Shaumian Leningrad Plant. Neftianik 7 no.11:13-14
N '62.   (MIRA 16:6)

(Leningrad—Lubrication and lubricants)

KAPRELYAN, R,

85-8-13/18

AUTHOR: Kaprelyan, R., Test Pilot First Class

TITLE: Helicopter MI-1 and its Control. Horizontal Flight.
             [Vertolet MI-1i upravleniye im; gorizontal'nyypolet]

PERIODICAL: Kryl'ya Rodiny, 1957, Nr 8, pp. 24-25 (USSR)

ABSTRACT: The author of the article asserts that flight on a
             helicopter (under good atmospheric conditions) pre-
             sents for the pilot the same feeling as the flight in
             an airplane. However, in the helicopter, the pilot feels
             less the so called "jolting" than in an airplane. It is
             explained by the fact that the charge on the aircraft
             caused by the displacement of air masses affects directly
             the lifting rotor; and the helicopter's fuselage, which
             is "suspended" from the rotor is exposed in a consider-
             ably less degree to the jolting forces of this charge.
             The helicopter pilot has no difficulty in regard to
             visual orientation, because the cockpit assures him
             good visibility. If the helicopter is well balanced in
             flight, the trimming force on the control stick and ped-
             als is insignificant. In a lengthy flight the helicopter
             pilot does not feel fatigue. Differently than in air-
             plane, the helicopter in a horizontal flight may have

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85-8-13/18

Helicopter Mi-1 and its Control (Cont.)

fairly large variety of air speeds. In the helicopter Mi-1 speed may vary from 40 km/h to 170 km/h. Also are possible flights at a smaller speed than 40 km/h. For instance, the helicopter flying to dust the fields may operate under the speed of 15-30 km/h, at altitudes of 5-10 m. The author asserts that because of burbling (he had explained the phenomenon in his previous article in the same periodical) the air speeds of a helicopter in a horizontal flight are limited in a following way:

-above the ground: 170 km/h
-at the altitude of 1000 m: 165 km/h
-at the altitude of 2000 m: 160 km/h
-at the altitude of 3000 m: 150 km/h

The author mentions that the burbling occurs in an airplane flight when the air speed is small and the angle of attack of the wing is still increasing. In a helicopter this phenomenon occurs at a high speed. It is caused by the difference in the speed of attacking rotor blade and the speed of the flight, i.e., that the rotor blade meets the air stream with the speed

Card 2/8

Helicopter Mi-1 and its Control (Cont.)

reduced in regard to increased speed of the flight. In order
to produce the necessary lift, the pilot of a helicopter must
increase the angle of attack of the rotor blade, but not beyond
the critical angle because it will cause the burbling. The
various setting of the angle of attack among the rotor blades
depends on the magnitude and direction of the air stream pene-
trating through the rotor. In a horizontal flight the angle of
attack on the tips of the rotor blades increase more quickly
than on the part close to the setting of the blade in a rotor
hub. The rotor blades of the helicopter Mi-1 has an even de-
velopment of the twist, which at the end of the blade attains
its maximum magnitude of 4 degrees (S= 4°). The burble in a
helicopter causes strong vibration and deteriorates the con-
trollability of the aircraft to a danger point. If the pilot
continues to accelerate the speed the controllability may be
lost entirely and then the forced landing may cause a crash of
the machine. The burble may be avoided. For this purpose the
pilot, by pushing down the collective pitch control lever, and
pulling on the control stick, should reduce speed. The burble
is also possible if the pilot does not watch the engine revo-

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85-8-13/18

Helicopter M1-1 and its Control (Cont.)

lutions which should not fall below 1700 r/min. Decrease of the engine revolutions has the same effect in the helicopter as the loss of speed in an airplane. The best altitude for a lengthy itinerary flight is 800-1000 m and the most convenient speed - 135 - 140 km/h. The throttle corrector should be completely cut off (the pilot should turn it left to the stop point). Lifting rotor pitch about 10.5 degrees Engine revolutions - 1800 - 1850 r/min. Keeping above mentioned mode of operation in flight, the pilot will obtain a range of flight of 385 km and duration of flight 2hrs 45 min. The maximum duration of flight of 3 hrs 24 min. may be obtained at the altitude of 1000 m, with speed - 90 km/min. and the throttle corrector cut off. Control of the engine and transmission is determined by the following data: temperature of the cylinder heads - minimum 120 CG, maximum 240 CG., (but not longer than 15 minutes); recommended temperatures - 180 - 220 CG. The temperature of the incoming engine oil minimum 40 CG., maximum 85 CG. (but not longer than 15 minutes); recommended engine oil temperature - 55-65 CG. Gas pressure: 0.15 - 0.30 kg/sq cm. Oil pressure: in the engine:

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85-8-18/18

Helicopter Mi-1 and its Control (Cont.)

    5 - 7 kg/sq cm., in the reducer of the engine: 1 - 3 kg/sq cm.
in the reducer of the lifting rotor: 2 - 5 kg/sq cm. Oil tem-
perature in the lifting rotor reducer: 35-95 CG. As soon as the
pilot has gained the predetermined altitude in a horizontal
flight, he establishes the corresponding angle and revolutions of
the lifting rotor by proper movement of the collective pitch
control lever and throttle corrector. The magnitude of this
angle and the number of revolutions depend on the predetermined
ground speed. At the same time, the pilot acting with the lat-
eral and longitudinal trimming mechanism releases correspond-
ingly the efforts on the helicopter's controls. According to
the character of sliding (to the left or to the right), which
may be unnoticed by the pilot, the position of the small ball
in the bank and turn indicator will be changed. By proper use
of the controls the pilot keeps the small ball right in the
center of the indicator. The sketches of the band and turn in-
dicator (Fig. 1-3) show the positions of the small ball. The
pilot maintains the helicopter in a horizontal flight by check-
ing the corresponding instruments: air speed indicator, altim-
eter and variometer. The author cites an example on how to keep
the aircraft at the indicated speed. The author recommends that
in a lengthy flight under good atmospheric conditions the col-
lective pitch control lever should be fixed on the stopping
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85-8-13/18

Helicopter M1-1 and its Control (Cont.)

notch, thus enabling the pilot to make free his left hand. The position of the pilot in his seat should be such that after 2-3 hours of flight he should not feel any fatigue. Air navigation safety in a helicopter, as in an airplane is realized by means of: conventional compasses, gyro horizon, radio compass 10 [RPK-10], and command radio sets. In order to increase the speed in a horizontal flight, (which requires more attention than in an airplane), the pilot turns the handle of the throttle corrector to the right; also this may be obtained by pulling up the collective pitch control lever. The increase of engine revolutions will produce a tendency in a helicopter to climb (and vice versa, decrease of engine power will have a tendency to lower) if the control stick remains in the same position. Consequently, in case of change of mode of horizontal flight, the pilot must keep direction by means of pedals and the altitude by proper movement of the control stick [cyclic pitch control lever]. The mode of operation of the engine is controlled by the collective pitch control lever and throttle corrector. It is important that in a helicopter all the movements of the

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Helicopter Mi-1 and its Control (Cont.)

pilot should be smooth and well coordinated. In the change of
mode of flight in an airplane participate: pedals, thrust unit,
and control wheel, whereas in a helicopter is added one more
element: the throttle corrector. Correct stowage plays a sub-
stantial role in the balance of the helicopter. In case the
center of gravity is too much to the front, the helicopter may
have a tendency to dive (pitching nose forward) to such a de-
gree that pilot will be unable to keep it in a predetermined
mode of flight only by means of the control stick. In case of
rear centering, the helicopter will have a tendency to raise
his nose up. The author illustrates both cases with sketches
[Fig. 4 and 5]. The scope of normal centering for the helicopter
Mi-1 may be expressed in the following way: X- center of grav-
ity from -0.52 to $\neq$ 0.160. The horizontal turn of the helicopter
should be effected with the bank up to 30 degrees, and at the
speed of 100-120 km/h. The pilot of a helicopter cannot visu-
alize the bank because the helicopter has no wings, therefore,
he must check the bank according to the position of the minia-
ture aircraft in gyro horizon. After completion of horizontal
flight, the helicopter approaches the landing spot. In spite
of the possibility of landing vertically, the helicopter in

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85-8-13/18

. Helicopter Mi-1 and its Control (Cont.)

most cases lands by gliding with the working engine. For heli-
copter Mi-1 the gliding is permitted at the following indicated
speeds, depending on the altitude of flight:

3000 m - 2000 m: 80 to 130 km/h,
2000 m - 1000 m: 70 to 140 km/h,
1000 m - the ground: 40 to 140 km/h.

The most convenient speed for gliding is 100 km/h. During glid-
ing the pilot should check with special attention the tempera-
ture of the power plant. The cylinder heads should not be cooled
below 120 CG. Proper temperature is kept by opening and closing
the engine flaps and oil radiators. The corresponding levers are
located on the floor of the cockpit, on the lefthand side from
the pilot's seat. The article contains 5 sketches.

AVAILABLE: Library of Congress

Card 8/8

85-58-4-19/36

AUTHOR: Kaprelyan, R., Test Pilot 1st Class

TITLE: The Mi-1 Helicopter and Its Control (Vertolet Mi-1 i upravleniye im)
    Landing the Helicopter (Posadka vertoleta)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 4, pp 20-22 (USSR)

ABSTRACT: The author describes in detail various ways of landing the Mi-1 heli-
    copter, i.e., vertical landings, airplane type landings, landing by
    autorotation of the rotor, landing in a limited area. He also discusses
    blind flying in the Mi-1. There are 6 drawings.

AVAILABLE: Library of Congress

        1. Helicopters-Performance

Card 1/1

KAPRELYAN, R., zasluzhennyy letchik-ispytatel' SSSR

The most powerful and most rapid. Kryl.rod. 13 no.12:15 D '62.
(MIRA 16:2)

(Helicopters)

KAPRELYAN, R., zasluzhennyy letchik-ispytatel'; SOKOLOV, A., letchik-ispytatel'

Automatic pilot in a helicopter. Av.i kosm. 45 no.4:63-66 Ap
'63.   (MIRA 16:3)
              (Helicopters) (Automatic pilot (Airplanes))

85-58-1-8/28

AUTHOR: Kaprelyan, R. I., Test Pilot 1st Class

TITLE: Records Made by the Mi-6 Helicopter (Rekordy na vertolete Mi-6)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 1, pp 8-9 (USSR)

ABSTRACT: The author reviews the development of Mi- helicopters deisgned by Mikhail Leont'yevich Mil', Doctor of Technical Sciences. The Mi-1 helicopter built in 1948 had 575 hp and was intended for one pilot and two passengers Its maximum speed was 190 km/hr, range 340 km. The Mi-4 helicopter had 1700 hp and carried a crew of two and twelve passengers; maximum speed was 205 km/hr, range 400 km. The Mi-6, the largest helicopter in the world, constructed at an experimental plant under the designer's supervision, is a single-rotor helicopter with two turbo-prop engines, built by P. A. Solov'yev. It carries a crew of 5 for long-range flights and a crew of 3 for short-range

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85-58-1-8/28

Records Made by the Mi-6 Helicopter

flights. The Mi-6 carries 70 passengers and the length of the cabin
measures about 19 m, the height about 3 m. The rotor diameter greatly
exceeds that of the Mi-4. The record flight was made by a crew that
consisted of the author, as captain, copilot German Vital'yevich
Alferov, 23; flight engineer Fedor Semenovich Novikov, and supervising
engineer Dmitriy Tikhonovich Matsitskiy, one of the oldest Soviet
aeronautical engineers. Other personalities mentioned in connection with
flight preparations are: aviation technicians Senin and Shmelev;
instrument technicians Stryapushin and Zimakov, and engineers
M. Pivovarov, V. Otdelentsev, V. Makarov, Yu. Yaroshinskiy and B. Sivtso
The Mi-6 took off from the airport of the Tsentral'nyy aeroklub imeni
V. P. Chkalova (Central Aeroclub imeni V. P. Chkalov), loaded with
12,004 kg of sand, a weight equivalent to that of 120 passengers and
their luggage. The test was stopped when an altitude of 2432 m was
reached; the entire flight lasted 21 minutes and established two new

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85-58-1-8/28

Records Made by the Mi-6 Helicopter

world records. The Soviet Mi-6 surpasses the American-made Pyasetskiy helicopter in size, engine power and performance. There are 5 photographs showing: the take-off of the Mi-6; R.I. Kaprelyan (the author) in his cockpit; flight engineer F. S. Novikov, R. I. Kaprelyan and copilot Master of Sports F. V. Alferov; the Mi-6 and Mi-1 helicopters at the USSR Central Airport imeni V. P. Chkalov, and Mikhail Leont'yevich Mil', the designer.

AVAILABLE: Library of Congress

Card 3/3

KAPRELYAN, R.I.; SOKOLOV, A.B.

Landing of a helicopter under conditions of autorotation of the
supporting propeller. Vest.Vozd.Fl. no.6:58-63 Je '61.
(MIRA 14:8)

(Helicopters—Piloting)

KAPRELYAN, Tamara O.

[How to protect children from influenza] Kak predokhranit' rebenka
ot grippa.   Erevan, Aipetrat, 1954. 8 p.   (MLRA 10:5)
        (INFLUENZA)

Min Health Armenian SSR

KAPREYSKIY, M. Ya., KHOMUTOV, R. M., BOGDASHOVA, L. S., SEVERIN,
Y. E. S. (USSR)

   "Synthesis of β-(N-Pyrazolyl)-Alanine."

Report presented at the 5th International Biochemical Congress,
Moscow, 10-16 August 1961

RUMANIA / Human and Animal Physiology. Nervous System.   T-10

Abs Jour   : Ref Zhur - Biologiya, No 1, 1959, No. 3811

Author   : Kapri, M.; Solomon, S.
Inst   : Rumanian Medical Academy, Iasi Affiliate
Title   : The Phasic States of Reflex Excitability in Spinal
             Cord Inhibition Due to Action of Ultraviolet Rays

Orig Pub   : Studii si cercetari stiint. Acad. RPR Fil. Iasi Med.,
             1956, 7, No 1, 31-38

Abstract   : The summation phenomena were studied by Sechenov's
             method on 36 frogs. Following ultraviolet radiation,
             a short excitation of the spinal cord centers was noted
             that changed over to a state of inhibition. Drop of
             excitability of the skin receptors and change in
             functional state of the spinal cord centers are the
             mechanisms that take part in the phasic phenomena
             (corresponding to the development of parabiosis manifes-
             tations). -- K. S. Ratner

Card 1/1

KAPRINAYOVA, S.; LINK, F.

Relation of infusion rate to minimal lethal doses in biological titration of G-strophanthin. Bratisl. lek. listy 31 no. 11-12:1107-1114 1951. (CLML 23:1)

1. Of the Third Department of the Fourth Division of the State Health Institute (SZU).

MARKOV, V.; KAPRINA, S.; BORODIN, K.; SERAPIONOV, N.

Advice to young naturalists. IUn. nat. no.8:34-36 Ag '58.

(Flowers) (Fishing)

(MIRA 11:9)

FAGARAZANU, I. [Fagarasanu, I.] (Bukharest); KAPRINIZAN TS, (Bukharest);
    BURLUI, D. (Bukharest); KONSTANTINESKU, TS. [Constantinescu, T]
    (Bukharest)

Treatment of angina pectoris. Khirurgiia 35 no.10:21-24 0 '59.
                                                        (MIRA 12:12)
        (ANGINA PECTORIS surgery)

KAPRIYELOV, G.M.; KARAKHANOV, Ya.

Effect of different concentrations of molybdemum in the
environment on content of molybdemum in the blood of frogs.
Izv. AN Turk. SSR. Ser. biol. nauk no.1:80-81 '62. (MIRA 15:3)

1. Turkmenskiy gosudarstvennyy meditsinskiy institut.
          (MOLYBDENUM—PHYSIOLOGICAL EFFECT)
                    (FROGS)

KAPRIYELOV, G.M.; OSIPYAN, Kh.O.

Case of adamantinoma of the lower jaw. Zdrav. Turk. 4 no.4:38 Jl-
Ag '60.   (MIRA 13:9)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. I.F. Berezin)
Turkmenskogo gosudarstvennogo meditsinskogo instituta im. I.V.Stalina.
i rentgenovskogo otdeleniya gorodskoy klinicheskoy bol'nitsy No.1
(glav. vrach - G.V. Bondar')
                    (JAWS—TUMORS)

KAPRIYELOV, G.M.

Atypical case of retention and dystopia of the lower wisdom tooth.
Stomatologiia 40 no.2:89 Mr-Ap '61.   (MIRA 14:5)

1. Iz kafedry gospital'noy khirurgii (zaveduyushchiy - prof. I.F.
Berezin) Turkmenskogo meditsinskogo instituta imeni I.V.Stalina.
          (TEETH—ABNORMITIES AND DEFORMITIES)

KAPRIYELOV, G.M.

Apparatus for the single-stage repositioning of bone fractures of
the leg. Zdrav.Turkm. no.4:48-49 Jl-Ag '62.   (MIRA 15:8)

1. Iz kafedry gospital'noy khirurgii (zav. - chlen-korrespondent
AMN SSSR prof. I.F. Berezin) Turkmenskogo gosudarstvennogo meditsin-
skogo instituta.
          (LEG--FRACTURE)   (ORTHOPEDIC APPARATUS)

KAPRIYELOV, G.M.

Foreign body in the region of the temporomadibular joint.
Stomatologiia 41 no.4:89-90 Jl-Ag '62.   (MIRA 15:9)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. I.F.Berezin)
Turkmenskogo meditsinskogo instituta.
        (TEMPOROMANDIBULAR JOINT--FOREIGN BODIES).

SOV/124-58-11-12907

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 149 (USSR)

AUTHOR: Kapriyelov, S. G.

TITLE: A Contribution to the Establishment of Criteria Relative to the
            Seepage Flow Regime (K voprosu ob ustanovlenii kriteriya rezhima
            fil' tratsii)

PERIODICAL: Azerb. neft. kh-vo, 1955, Nr 1, pp 21-22

ABSTRACT: A brief survey is given of expressions, proposed by various
             authors, for the Reynolds number and the coefficient of resistance
             applicable to the seepage of liquids and gases in a porous medium.
             The author attempts to analyze the validity of existing formulas and
             concludes that they are inadequate.

                                                          G. K. Mikhaylov

Card 1/1

ABDURASHITOV, S.A., professor; KAPRIYELOV, S.G.

Hydraulic losses in drill casings. Trudy Azerb. ind. inst. no.8: 33-41 '54. (Oil well drilling) (MLRA 9:10)

124-57-1-795D

AUTHOR: Kapriyelov, S.G.

TITLE: Investigation of the Upper Limit of Applicability of the Linear
             Law of Filtration (Issledovaniye verkhnego predela primenimosti
             lineynogo zakona fil'tratsii)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree
             of Candidate of Technical Sciences, presented to the Azerb.
             industr. in-t (Azerbaydzhan Industrial Institute), Baku, 1956.

ASSOCIATION: Azerb. industr. in-t (Azerbaydzhan Industrial Institute), Baku

             1. Materials--Hydrodynamic characteristics--Bibliography

Card 1/1

LENART, Gyorgy, dr.,; KAPRONCZAY, Sarolta, dr.

Sexual differences in human leukocytes, and their practical significance. Orv. hetil. 96 no.40:1096-1099 2 Oct 55.

1. A Fovarosi Janos Korhaz Gyermekosztalyanak kozlemenye.
  (LEUKOCYTES
    sex differences, practical application)
  (SEX CHARACTERISTICS
    sex differences in leukocytes, practical application)
  (CHROMOSOMES
    sex differences in leukocytes, practical application)

LASZLO, Ferenc, dr.; KAPROS, Karoly, dr.; ABRANDI, Endre, dr.

Repeated heart arrest during surgery for pheochromocytoma. Orv.
hetil. 106 no.30:1419-1420 25 Jl'65.

1. Szegedi Orvostudomanyi Egyetem, I. Belklinika (igazgato:
Julesz , Miklos, dr.) es Sebeszeti Klinika (igazgato: Petri, Gabor,
dr.).

HUNGARY

NEMETH, Andras, Dr, IMRE, Jozsef, Dr, KAPROS, Karoly, Dr, BARADNAY, Gyula, Dr;
Medical University of Szeged, I. Surgical Clinic (Szegedi Orvostudomanyi
Egyetem, I. Sebeszeti Klinika).

"Results With the Homoio-Transplantation of the Kidneys."

Abstract: [Authors' Hungarian summary] The authors performed the following
41 kidney transplantations on dogs: 6 auto-transplantation in the neck, 5
in the fossa iliaca; 23 homoio-transplantations in the fossa iliaca and 7
homoio-transplantations in the fossa iliaca combined with X-ray treatment.
The results, in accordance with data taken from the medical literature, can
be summarized by the statement that homoio-transplantation of the kidney is
not a technical but an immune-biological problem. Animals which have under-
gone auto-transplantation remained healthy after several years. In the
therapy of humans, however, successful homoio-transplantation is of the
greatest importance, but, as in the dog experiments, longer survival after
this method is impossible without special treatment. Histological tests too,
indicate an antigen-antibody reaction as a result of which the host organism
rejects the homotransplant within 20-22 days at the latest. In future ex-
periments, the inhibition of this reaction will be attempted. In accordance
with the cases reported by Dempster, Hamburger and Kuss on humans, the whole
body irradiation of the host, local irradiation of the transplant and simul-
1/2

KAPROSKIY, L.N.

SHVARTS, D.M.; KAPROSKIY, L.N.

Spectrum analysis of zinc of high purity by means of vacuum subli-
mation. Zav. lab. 23 no.11:1309-1313 '57.   (MIRA 11:1)

1. Institut "Gipronikel'."
        (Zinc--Spectra)   (Sublimation (Physical sciences))

KAPROV, S. P.

USSR/Medicine - Tularemia, Epidemiology

FD-2595

Card 1/1   Pub. 148 - 6/25

Author   : Kaprov, S. P.

Title   : The water type reservoir of tularemia

Periodical   : Zhur. mikro. epid. i immun. 4, 31-33, Apr 1955

Abstract   : A proposal is made that the type of natural reservoir of tularemia
                known variously as the mountain-valley type and as the foothill-
                stream type, according to the practice of naming reservoirs in
                geographics terms, be called the water type. The role of water
                contaminated by the excrement and urine of infected water rats and
                other rodents and of subsequently infected aquatic animals such
                as mollusks, caddis flies, and frogs is explained. Pasteurella
                tularensis were isolated from infected streams for as long as
                225 days. Human infection occurs through use or contact with the
                infected water. Vaccination of persons living near infected water-
                ways has proven 100 percent effective. Immunity lasts for as long
                as five years. The works of six other Soviet scientists in this
                field are mentioned. No references are cited.

Institution   : Tomsk Scientific-Research Institute of Vaccines and Serums (Direc-
                tor Cand Med Sci B. G. Trukhmanov) and the Tomsk Medical Institute
                imeni Molotov (Director - Prof. S. P. Khodkevich)

Submitted   : December 14, 1955

KAPROV, V.K.

Rural electronic automatic telephone exchange. Vest. sviazi 23
no.9:5-7 S '63.   (MIRA 16:10)

1. Starshiy inzh. Nauchno-issledovatel'skogo instituta gorodskoy
i sel'skoy telefonnoy svyazi Ministerstva svyazi SSSR.

KAPROV, V.S.

130-7-13/24

AUTHORS: Kaprov, V.S. and Zhidetskiy, D.P.

TITLE: Accelerated Schedule for Supplying Hot Metal to the Blooming
Mill Soaking Pits. (Uskorennyy grafik podachi goryachego
metalla k kolodtsam bluminga)

PERIODICAL: Metallurg, 1957, Nr 7, pp.24-26 (USSR)

ABSTRACT: The operational research laboratory at the Makeyevka
metallurgical works carried out an investigation of the process,
by which hot ingots from No.1 melting shop were supplied to the
blooming mill. The new accelerated schedules which were drawn
up for killed and rimming steels are shown and discussed. The
new schedules also involve revised provisions for the quicker
removal of ingots from the casting bay, stripping operations,
the arrival of ingots at the pits, traffic control. Under the
new scheme ingots arrive at the soaking pits at at least 850 C.
The changes made in wage rates to correspond with the revised
schedules are briefly mentioned and the improvements in trans-
port and metal temperature and in blooming-mill productivity
are tabulated. There is 1 table and 1 figure.

ASSOCIATION: The Makeyevka Metallurgical Works (Makeevskiy Metallurgi-
cheskiy Zavod)

AVAILABLE: Library of Congress.

Card 1/1

KAPROV, V. V.

KAPROV, V. V.   "Metallized wood tubing", Materialy po kommunal. khoz-vu, 1949, Collection 1, p. 34-36.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

KAPROV, V. V.

KAPROV, V. V. "On the problem of the depth of laying the Leningrad gas pipeline", Materialy po kommunal. khoz-vu, 1949, Collection 2, p. 37-40.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

GERSHTEYN, Boris Grigor'yevich; PAVLOV, Nikolay Aleksandrovich;
KAPROVA, N.S., otv. red.

[Automation of processes on the surface of coal mines; a
lecture] Avtomatizatsiia protsessov na poverkhnosti
ugol'nykh shakht; lektsiia. Moskva, Tsentr. in-t tekhn.
informatsii ugol'noi promyshl., 1962. 32 p.
                                        (MIRA 17:10)

LEONOVICH, N.V.; KAPROVA, Yu.D.

Extraction of proteolytic enzymes from malt shoots. Trudy
TSentr. nauch.-issl. inst. piv., bezalk. i vin. prom. no.10:
130-132 '63.   (MIRA 17:8)

KAPROWICZ, I.

50th anniversary of the cooperative in Buk. Pt. 2. The Rolnik cooperative until 1939.

p. 8 (Rolink Spoldzielca. Vol. 9 (i.e. 10) no. 3, Jan. 1957. Warszaw, Poland)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

KAPROWSKI, Wieslaw   (Warszawa)

Polish-Czechoslovak seminar at the Warsaw University. Czasop
geogr 35 no.2:246-247 '64

KAPROWSKI, Wieslaw

"Kartographische Nachrichten," no. 1, no.2, no.3, no.4, 1960.
Reviewed by Wieslaw Kaprowski. Przegl geod 34 no.12:518-519 D '62.

BYCHAWSKI, Tadeusz, mgr inz.; KLOPOCINSKI, Waclaw, mgr inz.; TYMOWSKI,
St, J., mgr inz.; KAPROWSKI, Wieslaw

Survey of books and periodicals. Przegl geod 35 no.10:
439-441 O '63.

KAPSA, Oldrich

For better use of technical literature in practical application of agricultural science. Vestnik CSAZV 8 no.10:581-584 '61.

1. Ustav vedeckotechnickych informaci Ceskoslovenske akademie zeme-delskych ved, Praha.

(Agriculture)

KAPSA, Oldrich; KEIL, Jaroslav, inz.

Scientific technical information, an indivisible part of
agricultural research and practice. Vestnik CSAZV 9 no.2:
104-108 '62.

KAPSA, Oldrich; KEIL, Jaroslav, inz.

Cooperation of central agencies of scientific and technical in-
formation on agriculture and forestry of socialist countries. Vestnik
vyzk zemedel 9 no.8:292-298 '62.

1. Ustav vedeckotechnickych informaci, Ministerstvo zemedelstvi,
lesniho a vodniho hospodarstvi, Praha.

KAPSA, Oldrich

For a better use of information on scientific research in
agricultural enterprises. Vestnik vyzk zemedel 9 no.6:301-
302 '62.

1. Ustav vedeckotechnickych informaci, Ministerstvo zemedelstvi,
lesniho a vodniho hospodarstvi.

KAPSA, Oldrich

The Central Agricultural and Forestry Library extending its
service to the agricultural research. Vestnik vyzk zemedel
9 no.11:534-537 '62.

1. Ustav vedeckotechnickych informaci, Ministerstvo zemedelstvi,
lesniho a vodniho hospodarstvi.

KAPSA, Oldrich

Technical libraries, a basis for establishment of Scientific,
Technical, and Economic Information Units in agricultural
enterprises. Vest ust zemedel 10 no.6/7:261-266 '63.

1. Ustav vedeckotechnickych informaci Ministerstva zemedelstvi,
lesniho a vodniho hospodarstvi.

KAPSEVICH, A.S.;   MYSHAKIN, V.K.

Device for checking sliding calipers. Izm. tekh. no. 1:11-12
Ja '61.   (MIRA 14:1)
          (Calipers--Testing)

KAPSHANINOV, V.G.

Plow for cutting turf. Transp. stroi. 7 no.1:30 Ja '57.

(MIRA 10:3)

(Earthwork)

KAPSHANINOV, Yu. I.

137

PHASE I BOOK EXPLOITATION   SOV/5486

Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheniy v narodnoye khozyaystvo SSSR. Riga, 1960.

Radioaktivnyye izotopy i yadernyye izlucheniya v narodnom khozyaystve SSSR; trudy soveshchaniya v 4 tomakh. t. 1: Obshchiye voprosy primeneniya izotopov, pribory s istochnikami radioaktivnykh izlucheniy, radiatsionnaya khimiya, khimicheskaya i neftepererabatyvayushchaya promyshlennost' (Radio- active Isotopes and Nuclear Radiations in the National Economy of the USSR; Transactions of the Symposium in 4 Volumes. v. 1: General Problems in the Utilization of Isotopes; Instruments With Sources of Radioactive Radiation; Radiation Chemistry; the Chemical and Petroleum-Refining Industry) Moscow, Gostoptekhizdat, 1961. 340 p. 4,140 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR, and Gosudarstvennyy komitet Soveta Ministrov SSSR po ispol'zovaniyu atomnoy energii.

Ed. (Title page): N.A. Petrov, L.I. Petrenko and P.S. Savitskiy; Eds. of this Vol.: L.I. Petrenko, P.S. Savitskiy, V.I. Sinitsin, Ya. M. Kolotyrkin, N.P. Syrkus and R.F. Romm; Executive Eds.: Ye. S. Levina and B. F. Titskaya; Tech. Ed.: E.A. Mukhina.

Card 1/20

137

Radioactive Isotopes (Cont.)   SOV/5486

PURPOSE: The book is intended for technical personnel concerned with problems
of application of radioactive isotopes and nuclear radiation in all branches
of the Soviet economy.

COVERAGE: An All-Union Conference on problems in the introduction of radioactive
isotopes and nuclear radiation into the national economy of the Soviet Union
took place in Riga on 12-16 April 1960. The Conference was sponsored by:
the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR (State
Scientific and Technical Committee of the Council of Ministers, USSR); Glavnoye
upravleniye po ispol'zovaniyu atomnoy energii pri Sovete Ministrov SSSR (Main
Administration for the Utilization of Atomic Energy of the Council of Ministers,
USSR); Academy of Sciences, USSR; Gosplan USSR; Gosudarstvennyy komitet Soveta
Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the
Council of Ministers, USSR, for Automation and Machine Building) and the Council
of Ministers of the Latvian SSR. The transactions of this Conference are
published in four volumes. Volume I contains articles on the following subjects:
the general problems of the Conference topics; the state and prospects of
development of radiation chemistry; and results and prospects of applying radio-
active isotopes and nuclear radiation in the petroleum refining and chemical
industries. Problems of designing and manufacturing instruments which contain
sources of radioactive radiation and are used for checking and automation of
technological processes are examined, along with problems of accident prevention
in their use. No personalities are mentioned. References accompany some of the
articles.
Card 2/12

Radioactive Isotopes (Cont.)   SOV/5486

Oziraner, S.N., G.A. Gaziyev, M.I. Yanovskiy, V.S. Kornyakov and
Yu. I. Kapshaninov. Utilization of Promethium-147 in a Highly
Sensitive Ionization Gas Analyzer   278

Manoylov, V. Ye., Yu. Ya. Loznovskiy, N.I. Osipov, Ye. Kh.
Gel'gren, and S.F. Denisov. Installation for Automatic Checking
of the Thickness of Polyethylene Film   283

Votlokhin, B.Z., A.Z. Dorogochinskiy, and N.P. Mel'nikova.
Implementation of a Radiometric Method for Checking Successive
Pumping of Petroleum and Petroleum Products in Main Pipelines   288

Alimarin, I.P., Yu. V. Yakovlev, M.N. Shulepnikov, and G.P.
Perezhogin. Determination of Small Quantities of Admixtures in
Thallium, Gallium, Phosphorus, and Antimony, Using the Method of
Radioactivating Analysis   293.

Gorshteyn, G.I. Application of Radioactive Isotopes for Checking
the Fractionation of Microimpurities in Developing Methods for
Obtaining High-Purity Inorganic Substances   298
Card 11/12

AUTHOR: Gromov, V. V.; Karshaninov, Yu. I.

oxide under irradiation /4

SOURCE: AN SSSR. Doklady, v. 160, no. 5, 1965,

TOPIC TAGS: crystalline cerium oxide plating, cerium oxide plating, cerium oxide
irradiation, highly dispersed plating

ABSTRACT:
lytic crystalline platings of cerium oxide on stainless steel
perimental set-up contained a 1.5 cm^2 Pt-anode rotating at about 120 rpm, a
stainless steel cathode, and an LP-5 glass electrode for pH recording. In each ex-
periment a 50 ml solution of CeCl$_3$ was used containing 0.02 mg of Ce^3/ml. The
following conditions were also constant: electrolysis duration 1 hour, current den-
sity 70 ma/cm^2, voltage 12V, pH 2.5, and temperature 55°C. In all cases 0.8 ± 0.05
mg or 80 ± 5% of Ce^{3+} ions contained in the electrolyte was deposited on the stain-
less steel cathode. In one series of experiments Ce^{144} isotope (0.2, 2.0 and 20.0

ACCESSION NR: AP5007620

... ... of ionizing radiat... ...

... ...

... ... of ideas ... ...

level, cerium oxide produce ... ... from the Co60 irradiation. Further ...

Card 2/3

Card 3/3

GROMOV, V.V.; KAPSHANINOV, Yu.I.

Production of highly dispersed electrolytic precipitates of cerium oxide crystals under the effect of irradiation. Dokl. AN SSSR 160 no.5:1111-1113 F '65.

(MIRA 18:2)

1. Institut fizicheskoy khimii AN SSSR. Submitted July 18, 1964.

PODDUBNYY, I.A., inzh.; KAPSHIN, V.G., inzh.

Installing the main engine of a river ship for carrying dry
cargo. Sudostroenie 26 no.2:62-63 (208) Feb '60.   (MIRA 14:11)
(Marine engines)

KAPSHITSKIY, M.I., inzh.

Protective coatings used in the construction of power systems in the U.S.A. Energ. stroi no.39:96-99 '64.

(MIRA 17:11)

KAPSHIVIY, A.A.

S/198/61/007/006/003/008
D299/D301

AUTHORS: Polozhiy, H.M. and Kapshyvyy, O.O. (Kyyiv)

TITLE: On solving the axisymmetric problem of the elasticity theory for a finite cylinder

PERIODICAL: Prykladna mekhanika, v. 7, no. 6, 1961, 616-625

TEXT: Mixed axisymmetric problems are considered. Proceeding from the general properties of p-analytic functions it is possible to obtain in closed form the solution to several problems of the type under consideration which were solved earlier by other methods. It is noted that by the method used it is sufficient to expand in Fourier series in trigonometric functions only. In cylindrical coordinates x, θ, y, the basic formulas of axisymmetric theory are

$$2\mu \, (W - iU) = (k + 1) \, \Phi(z) + 2x \, \frac{\partial \Phi(z)}{\partial x} + \overline{\Psi(z)} \qquad (1)$$

Card 1/66

On solving the axisymmetric ...

$$R^{*} + iZ^{*} = \left[-2x \frac{\overline{\partial \Phi(z)}}{\partial x} - \overline{\Psi(z)} \right]_{L} - \frac{2\mu}{x^2} \int_{L} U dy \qquad (2)$$

where

$$k = \frac{\lambda + 3\mu}{\lambda + \mu} \; ; \quad R^{*} = \int_{L} X_n ds; \quad Z^{*} = \int_{L} x Y_n ds$$

U/x and W are the components of the displacement vector, L - a smooth contour, X_n and Y_n - the projections of the stresses, $\Phi(z)$ and $\Psi(s)$ - arbitrary x-analytic functions of the complex variable z. Let L be a horizontal straight line. By using the operator S^{-1}, one obtains from formulas (1) (2):

Card 2/6

On solving the axisymmetric ...   S/198/61/007/006/003/008
D299/D301

$$2\mu(w - iu) = (k + 1)\varphi(z) + 2x \overline{\frac{\partial\varphi(z)}{\partial x}} + \overline{\varphi(z)} - \varphi(z) + \overline{\psi(z)} \qquad (1,a)$$

$$r^* + iz^* = - 2x \overline{\frac{\partial\varphi(z)}{\partial x}} - \overline{\varphi(z)} + \psi(z) - \overline{\psi(z)} + c(y) \qquad (2,a)$$

where $\varphi(s) = S^{-1}\phi(z) = p + iq$ and $\psi(z) = S^{-1}\psi(z)$ are analytic func-
ions. Adding (1,a) and 2,a) one obtains

$$(2\mu w + r^*) + i(z^* - 2\mu u) = (k + 1)\varphi(z) + c(y) \qquad (8)$$

Formula (8) permits determining the boundary values of the harmo-
nic function p(x,y) at the sides 1 and 2 of the rectangle in Fig.1,
provided the normal displacements and tangential stresses at the
cylinder ends are given; the function q(x,y) can be determined if
the normal stresses and tangential displacements are given. Four

Card 3/6

On solving the axisymmetric ...

specific axisymmetric problems are considered: 1) The normal dis-
placements and tangential stresses are given on the cylinder ends
as well as on its lateral surface; in this case one obtains the
explicit formulas:

$$\Phi(z) = P + iQ \quad S\varphi(z) = \sum_{n=1}^{\infty} [a_n{'}\cos\mu_n z - b_n{'}(i\sin\mu_n z)] - \sum_{n=1}^{\infty} c_n{'}(i\,\mathrm{sh}\,\nu_n z) -$$

$$-A{'}(iz) + \frac{\pi}{2} B, \tag{14}$$

$$\Psi(z) = R + iS = S\psi(z) = \sum_{n=1}^{\infty} [a_n'{'}\cos\mu_n z - b_n''(i\sin\mu_n z)] - \sum_{n=1}^{\infty} c_n'{'}(i\,\mathrm{sh}\,\nu_n z) -$$

$$-A'{'}(iz) + \frac{\pi}{2} B', \tag{14,a}$$

Card 4/6

On solving the axisymmetric ...

S/198/61/007/006/003/008
D299/D301

2) at the end surfaces, the normal displacements and tangential stresses are given, and at the lateral surface the tangential displacements and normal stresses. The solution of the first 2 problems considerably simplifies the solution of the following 2 problems: 3) Normal displacements and tangential stresses at the cylinder ends, normal and 'angential stresses at the lateral surface. 4) Normal displacements and tangential stresses at the cylinder ends, normal and tangential displacements at the lateral surface. In a footnote, the authors state that problem 4 has apparently never been solved before. Finally, it is noted that mixed axisymmetric problems with other boundary conditions (for the cylinder under consideration) can be solved explicitly by analogy with the above four problems. There are 1 figure and 9 references: 8 Soviet-bloc and 1 non-Soviet-bloc (in translation).

ASSOCIATION: Kyyivs'kyy derzhavnyy universytet (Kyyiv State University)

SUBMITTED: June 25, 1960

Card 5/8 ₀

SOURCE: Ref. zh. Matematika, Abs. 5B393

AUT 'R: Kapshy*vy*y, O. O.

TIT   On the application of p-analytic functions to the axio-symm···
of e   icity (in Ukrainian, Russian summary)

CIT   SOURCE: V sny*k Ky*yivs'k. un-tu, no. 5, 1962, Ser mster··
vy*i   76-89

TOI   TAGS: p analytic function, axis symmetric theory, elasticity

TR/   .ATION: On the basis of general formulas of the axis-symm··
of e   ·· exoressior the elements of the str····
two   ialytic functions of the complex variable z = x + iy wir· ···
p·y   Zh Mat 1963 2B14·] the solution of mixed pr·····
tric   ticity for a hollow finite cylinder is given in closed f···

Card 1/

L 21357-65
ACCESSION NR: AR4041529

series). In relatively simple form (in terms of quadratures) is the solution of the first and second basic problems of axis-symmetric elasticity for a hollow infinite cylinder

SUB CODE: MA   ENCL: 00

Card 2/2

KAPSHIVYY, A.A. [Kapshyvyi, O.O.] (Kiyev)

Using the method of P-analytic functions for the solution of a problem for a laminated cylinder. Prykl. mekh. 9 no.6:670-676 '63. (MIRA 16:12)

1. Kiyevskiy gosudarstvennyy universitet.

KAPSHIVYY, A.A.

Use of p-analytic functions in solving boundary value problems
in axisymmetric thermoeleasticity theory. Vop. mat. fiz. i teor.
funk. no.1:24-34 '64.   (MIRA 18:2)

BILENKO, D.I.; DEMIDOV, V.K.; KOTELKOV, V.N.; NAZVANOV, V.F.;
     NOSOVA, V.A.; ORNATSKAYA, Z.I.;ROKAKH, A.G.; SVERDLOVA,
     A.M.; KAPSHTAL', G.G.; KIR'YASHKINA, Z.I., dots., red.;
     VINNIKOVA, I.A., red.

[Textbook for practical studies on the physics of semiconductors]
Rukovodstvo k prakticheskim zaniatiiam po fizike poluprovodnikov;
uchebnoe posobie. [Saratov], Saratovskii univ., 1964. 115 p.
                                        (MIRA 18:11)

ACC NR: AR6022458   SOURCE CODE: UR/0169/66/000/003/B029/B029

AUTHOR: Kapshtal', K. N.

TITLE: Size distribution of droplets in a cloud of artificial fog

SOURCE: Ref. zh. Geofiz, Abs. 3B194

REF SOURCE: Dokl. Mosk. s.-kh. akad. im. K. A. Timiryazeva, vyp. 111, ch. 2, 1965, 27-34

TOPIC TAGS: fog, cloud physics

TRANSLATION: The paper describes an investigation of size distribution of water drop-
lets produced with a reflecting atomizer. The droplets are captured on a glass plate
coated with a 1:5 mixture of vaseline and vaseline oil. This proportion permits coagu-
lation of the mixture at 15-20°C in about 35 to 45 sec. Actual measurements and calcu-
lations show that the size distribution of water droplets in a cloud of artificial fog
is normal. A. Malkina.

SUB CODE: 04

UDC: 551.575.1

Card 1/1

L 13213-63   EWP(q)/BDS/EWT(m)   AFFTC   DE/MJW/JD
ACCESSION NR: AP3002929   S/0076/63/037/006/1275/1280
                                                        5 6
AUTHOR: Kapshtal', V. N.; Sverdlov, L.M.   5 5

TITLE: Calculation and interpretation of vibrational spectra of diboranes.
1. Deuterium-substituted diboranes.

SOURCE: Zhurnal fizicheskoy khimii, v. 37, no. 6, 1963, 1275-1280

TOPIC TAGS: vibrational spectrum, diborane, deuterium-substituted borane

ABSTRACT: A calculation has been made of the normal vibrating frequencies of
12 partially deuterated diborane derivatives: HDB sup 10 H sub 2 B sup
10 H sub 2, HDB sub 11 H sub 2 B sup 11 H sub 2, H sub 2 B sup 11 HDB sup 11 H
sup 2, D sub 2 B sup 10 DH, trans-HDB sup 10 H sub 2 B sup 10 DH, HDB sup 10 D
sub 2 B sup 10 H sub 2, D sub 2 B sub 10 D sub 2 B sup 10 Hsub 2, cis-
HDB sup 10 D sub 2 B sup 10DH, trans-HDB sup 10 D sub 2 B sup 10 DH, HDB sup
11 D sub 2 B sup 11 D sub 2 and D sub 2 B 11 HDB sup 11 D sub 2. An
interpretation of the infrared spectra of mono and petadeiterpsibstotited*
diboranes has been given. The characteristic frequencies have been determined for
various structural groups contained in the deuterosubstituted diboranes. Orig.
art. has: 4 tables, 1 diagram and 9 equations.
                    Association: Saratov Polytechnic Inst.
Cord 1/2/

L 49780-65   EPF(c)/EPR/EWP(j)/EWA(c)/EWT(1)/EWT(m)   Pc-4/Pr-4/Pe--
IJP(c)/RPL   WW/RM

ACCESSION NR: AR5012234   UR/0058/65/000/00'

SOURCE: Ref. zh. Fizika, Abs. 3D100

AUTHORS: Bolotina, E. N.; Kapshtal', V. N.; Kraynov, Ye. P.; Klochkovskiy, Yu. Y.;
Kikina, V. S.; Sverdlov, L. M.

TITLE: Calculation and interpretation of vibrational spectra of molecules of
various classes

CITED SOURCE: Tr. Komis. po spektroskopii. AN SSSR, vyp. 1, 1964, 120-124

TOPIC TAGS: vibrational spectrum, organic molecule, isotopic substitute, force
field, double bond

TRANSLATION: A calculation was made of the normal vibrations, and a complete in-
terpretation is presented for the vibrational spectra of 25 molecules: cyclo-
butane, spiropentane, thiphane, cis-trans-dimethyldiborane, trimethylborane, C_2H_4,
C_2Cl_4, C_2H_4, $F_2C=CHF$, $Cl_2F=CH_2$, $F_2C=CHCl$, cis-trans-$C_2H_2F_2$, cis-trans-$C_2H_2Br_2$,
and certain isotopic substitutes. The features of the force field of the

Card 1/2

L 49780-65

ACCESSION NR: AR5012234

cules are clarified. In particular, the strength of the C=C double bond increases upon successive substitution of the H atoms in ethylene by F atoms.

SUB CODE: MP, OP   ENCL: 00

Card 2/2

L 11939-66

ACC NR: AP6001656   SOURCE CODE: UR/0051/65/019/006/0977/0978

AUTHOR: Kapshtal' V. N.

ORG: None

TITLE: On the determination of supplementary conditions between deformation coordinates

SOURCE: Optika i spektroskopiya, v. 19, no. 6, 1965, 977-978

TOPIC TAGS: atom, atomic theory, atomic structure

ABSTRACT: Reference is made to a work by Z. Cihla and J. Pliva (Collect. Czechosl. Chem. Communs., 26, 1903, 1961), in which was derived the general formula linking the natural deformation coordinates, formed by n bonds originated from a single atom. In the present paper the author developes a simplified variation of this formula, which can be conveniently used for the solution of a class of oscillating problems. The expression obtained is sufficient for the determination of additional conditions between deformation constants with any number of bonds. Orig. art. has: 6 formulas.

SUB CODE: 20 / SUBM DATE: 25Mar65 / ORIG REF: 001 / OTH REF: 001

HW

Card 1/1   UDC: 535.338.42.001.1

KAGCHAL', V.N.; SVERDLOV, L.M.

Calculation and interpretation of the vibration spectra of
diborane compounds. Part 2. Zhur. fiz. khim. 39 no.9:2493-
2197 S '65.   (MIRA 18:10)

1. Saratovskiy politekhnicheskiy institut.

L 40114-66   EWT(m)/EWP(j)   WW/JW/JWD/RM

ACC NR: AP6013913   SOURCE CODE: UR/0076/66/040/004/0945/0949

AUTHOR: Kapshtal', V. N.

ORG: Saratov Polytechnic Institute (Saratovskiy politekhnicheskiy institut)

TITLE: Calculation and interpretation of vibration spectra of diborane compounds. III.
1, 1-dimethyldiborane and tetramethyl diborane

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 4, 1966, 945-949

TOPIC TAGS: organoboron compound, borane, vibration spectrum, spectrum analysis,
molecular spectrum , DIBORANE

ABSTRACT: Data for 1,1-dimethyldiborane are presented in Table 1, and similar data are
given for tetramethyl diborane. Vibrational coordinates are plotted graphically. Characteris-
tic frequencies of the molecules in question were identified. The author concludes that the
propriety of the selected power coefficients is indicated by his use of a single system of such
coefficients to calculate deutero and alkyl substituted diborane derivatives and obtain adequate-
ly reliable results. In conclusion, the author thanks L. M. Sverdlov for constant supervision
of the work. Orig. art. has: 2 figures and 2 tables.

UDC: 543.42

Card   1/2

L 40114-66

ACC NR: AP6013913

Table 1. Calculation and interpretation of 1,1-dimethyldiborane
(intensities are given in parentheses)

Line numbers	Symmetry	Coordinates	μ_{calc}, cm^{-1}	μ_{exp}, cm^{-1}	Line numbers	Symmetry	Coordinates	μ_{calc}, cm^{-1}	μ_{exp}, cm^{-1}
10	A_1	q^-(C—H)	2945	2958 (200)	13	B_1	Q(B—C)	1197	1212 (26)
20	B_1	q^-(C—H)	2944		1	A_1	Q(B—C)	1151	1163(260),1126(210)
27	B_2	q (C—H)	2944		7	A_1	α(HBH)	1169	1163(260)
32	A_2	q (C—H)	2944	—	28	B_2	β(BCH)	1084	1064(560)
8	A_1	q^+(C—H)	2868	2841	33	A_2	β(BCH)	1046	—
18	B_1	q^+(C—H)	2856		26	B_2	α(HBH')	981	978
2	A_1	q (B—H)	2523	2494 (450)	22	B_1	β^-(BCH)	943	923(130)
14	B_1	q (B—H)	2595	2571 (470)	31	A_2	α(HBH')	912	—
3	A_1	q'(B—H')	2060	2096 (120)	16	B_1	α(HBH')	872	829 (85)
23	B_2	q'(B—H')	1808	1808	12	A_1	β(HBH')	838	
24	B_2	q'(B—H')	1737	1764 (44)	5	A_1	β(B—H')	804	—
4	A_1	q'(B—H')	1608	1546(1500)	30	A_2	β(CBH')	404	—
11	A_1	α^-(HCH)	1435		25	B_2	β(CBH')	363	—
21	B_1	α^-(HCH)	1435	1441 (130)	15	B_1	α_0	332	—
29	B_2	α (HCH)	1435		17	B_1	γ(CBB)	283	—
34	A_2	α (HCH)	1430	—	6	A_1	γ(CBC)	232	—
9	A_1	α^+(HCH)	1336	1326 (490)					
19	B_1	α^+(HCH)	1336						

SUB CODE: 07/ SUBM DATE: 28Dec64/ ORIG REF: 003/ OTH REF: 006

Card 2/2

L 04757-67   EWT(l' IJP(c)

ACC NR: AP6025962   SOURCE CODE: UR/0051/66/021/001/0104/0106

AUTHOR: Kapshtal', V. N.

ORG: none

TITLE: Calculation of kinematic coefficients and coriolis constants for molecules with cyclic elements

SOURCE: Optika i spektroskopiya, v. 21, no. 1, 1966, 104-106

TOPIC TAGS: coriolis force, molecular interaction, molecular property, molecular structure, molecular spectrum, complex molecule

ABSTRACT: The author compiled tables of coefficients for kinematic interactions A_{kl} and for the elements of a matrix C^{α} utilized for calculation of coriolis interactions in complex molecules with cyclic elements. The calculations were carried out utilizing the following expressions:

$$A_{kl} = \sum_a s_{ka} s_{la} \qquad C^{\alpha}_{kl} = \sum_a c_i [s_{ka} s_{la}] e_a$$

Here k, l are the numbers of the natural coordinates, a indicates the atoms common to these coordinates, s_{ka}, s_{la} are transformation vectors for shifting of the atoms

UDC: 539.194.001.24

Card 1/2

L 04757-67

ACC NR: AP6025962

from Cartesian to natural coordinates, ε_α is the inverse atomic mass, e_α are the unit vectors ($a=x$, y, z). The expressions for the elements of the expanded form of these equations for eleven most common types of interaction of natural coordinates are tabulated. There are, however, four additional types of interactions encountered in complex molecules with cyclic elements, as shown in figure 1.
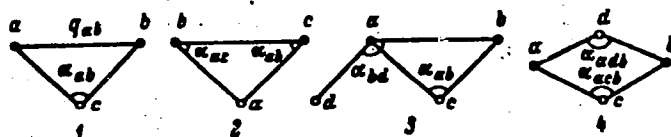
Fig. 1

The author derived both the general and the explicit expressions for A_{kl} and C^α for each of the interactions shown in figure 1. Orig. art. has: 1 figure, 2 tables, 2 formulas.

SUB CODE: 20/   SUBM DATE: 22Nov65/   ORIG REF: 003/   OTH REF: 001

kh

Card 2/2

TAL, V. N.

Sep/Oct 53

USSR/Physics - Superfine OH Spectrum

"Theory of Splitting of M. A. Kovner and V. N. Kapshtal,
Effect," in Chernyshevskiy
Due to State Tunnel Univ, Vol 17, No 5, pp 561-565
Saratov, Ser Fiz, values of potential. Results 854,976
Iz Ak Nauk, the quantum mechanical spectral data. Rev 72,
Compute behavior of KH2PO4 Mason from (Phys
energy with Indebted to S. V. Falkovich.
agree)). those of W. P.
(1947)).

274485

S/138/59/000/011/009/011
A051/A029

AUTHORS: Gorelik, B. M.; Chelyshev, V. V.; Kapshtyk, V. I.

TITLE: Some of the Technical Factors Which Determine the Quality of
              Calendering

PERIODICAL: Kauchuk i Rezina, 1959, No. 11, pp. 49-51.

TEXT: The problem of determining the optimum degree of polishing re-
quired of the surface in calender machine rollers is studied. A method is
offered for determining this factor and the effect of the polishing degree
on the calendering of the rubber. Several functioning calendering machines
in various rubber-producing plants were investigated and certain conclusions
drawn. The profilometer K B-7 (KV-7) shown in a photograph was used for de-
termining the degree of polishing in the surface of the calender rollers
(type 740). The measurements were carried out at 25-40°C and the method
is given in detail. The optimum value was found to be within the range of
the 6-7 class (according to ГОСТ 2789-51 (GOST-2789-51) for mass-produced
rubbers. The polishing degree of the roller surfaces in various plants was
highly varied, i.e., within the range of 5-9th class. The rollers in the

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S/138/59/000/011/009/011
A051/A029

Some of the Technical Factors Which Determine the Quality of Calendering

same calender can be of various degrees of polishing. If the degree of
polishing is too high, i.e., above the optimum value, the calendering of
the rubber can be impaired, e.g. the formation of bubbles on the rubber's
surface can take place. It was found that the productivity on the four-
and five-roller calenders, as compared to that of the three-roller ones
is higher by about a factor of two and sometimes three. The four- and five-
roller calenders with removable rollers have an advantage over the three-
and four-roller calenders with a vertical presentation of the rollers, viz.,
when the feeding takes place from two sides, the rubber is folded on the
calender itself. This helps to produce rubber without bubbles. If the
surface is underpolished the resultant calendered rubber is of a low quality,
having scratches, creases, etc. This also causes the processed material to
stick to the rough surface, making the work more difficult. Calendering
machines with thin-walled rollers have an advantage over those with thick-
walled rollers in that they can be used for producing rubber of a greater
variety. It is difficult to manufacture rubbers, such as the polychloro-
prene type requiring low temperatures, on the thick-walled roller calenders.

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Some of the Technical Factors Which Determine the Quality of Calendering

S/138/59/000/011/009/011
A051/A029

G. A. Polivektov and I. S. Kheyfets took part in the work. There is
1 photograph and 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti
(Scientific Research Institute of the Rubber Industry)

Card 3/3

GORELIK, B.M.; BUKHINA, M.F.; KAPSHTYK, V.I.; RATNER, A.V.; MAYOROVA, A.S.

Rubber sealing rings. Standartizatsiia 25 no.3:49-50 Mr '61.

(MIRA 14:3)

(Gaskets—Standards)

L 29115-65   EWT(m)/EWP(j)   Pc-4   RM

ACCESSION NR: AP5005393   S/0138/65/000/002/0030/0031

AUTHORS: ...

TITLE: The effect of the vulcanizing group and the addition of uncrystallized rubber on the crystallization of cured rubber from natural rubber

SOURCE: ...

TOPIC TAGS: rubber, vulcanization

ABSTRACT: The authors investigated the effect of vulcanization ...

... crystallization. ... characteristic ...

... a given temperature. The relationship ... rubber that has predominant polysulfide bonds, its $t_{1/2}$ greater ...

Card 1/3

L 29115-65

ACCESSION NR: AP5005393

2

increase in lattice density. For rubber with pre... ... .
rubber with peroxide vulcanization, the increase in ica T... is much ... ...
parameter B increases with increase in lattice density in rubber of the first type,
but it remains practically constant in rubber of the second group. The pattern
observed for unfilled rubber for the effect of lattice density on ret... ... ...
lization is the same as for filled rubber. The introd.... ...
... ...
... ...

ASS A.
(Scientific Research Institute of the Rubber Industry)

SUBMITTED: 00   ENCL: 00   SUB...

A... ... ...
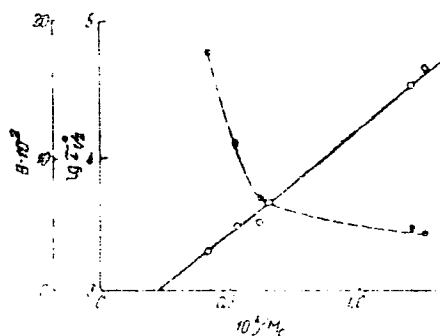
Card 2/3

L 29115-65

ACCESSION NR: AP5005393

Fig. 1. Dependence of parameters of the character
the lattice density for rubber with polysulfide
polysulfide bonds.

Card 3/3

GORELIK, B.M.; RATNER, A.V.; BUKHINA, M.F.; KAPSHTYK, V.[.

Studying the testing butt joints and rubbers for asbestos cement water
pipes. Kauch.i rez. 21 no.7:19-23 Jl '62.   (MIRA 15:7)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.
(Water pipes)   (Rubber goods)

L 29191-66

ACC NR: AP6019083   SOURCE CODE: UR/0239/65/051/005/0626/0627

AUTHOR: Kapshuk, A. P.; Tsapenko, V. F.

ORG: Laboratory of Pathogenesis and Pathogenetic Therapy, Ukrainian Institute of Experimental and Clinical Oncology, Kiev (Laboratoriy patogeneza i patogeneticheskoy terapii Ukrainskogo instituta eksperimental'noy i klinicheskoy onkologii)

TITLE: Technique of electrode implantation for electroencephalographic studies on rabbits

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 51, no. 5, 1965, 626-627

TOPIC TAGS: rabbit, EEG, brain, electrode, electrophysiology

ABSTRACT: Trepanation of the skull to affix a block containing electrodes may injure the brain and affect the EEG. To prevent injury to the brain, the following method is used. After a section of skin and the periosteum under it have been removed from the skull of anesthetized rabbits, needle electrodes made of stainless steel are pressed in through the bone of the skull. The electrode needles are equipped with metal sleeves. After the needle electrodes have been inserted into the skull, medical styracryl is applied to the bone. The styracryl on hardening holds the electrodes firmly in place. Orig. art. has 2 figures. [JPRS]

SUB CODE: 06/ SUBM DATE: 08Aug63/ ORIG REF: 004 / OTH REF: 002

Card 1/1 BLG   UDC: 612.822.3.087

KAPSHUK, G., inzhener.

Revise the system of planning and repair of equipment in grain
procurement stations. Muk.-elev.prom. 22 no.6:30 Je '56.
                                              (MLRA 9:9)

1.Kamenskaya oblastnaya kontora Zagotzerno.
          (Grain elevators)

KAPSHUK, G., inzh.

A complex system for the manufacture of antibiotics. Muk.-elev. prom.
28 no.6:21-22 Je '62.   (MIRA 15:7)

1. Rostovskoye otdeleniye Gosudarstvennogo proyektnogo instituta po
proyektirovaniyu mukomol'noy promyshlennosti.
          (Antibiotics--Equipment and supplies)

KAICIIUKOV, S.C.

Course adopted by the party in the speeding up of the development
of chemistry. Trudy LTITSBP no.15:166-169 '65.

(MIRA 18:8)

[handwritten text]

KAPSHUKOV, Stepan Gavrilovich; ZASLAVSKIY, B.Ye., red.; PULYAKH, A.I.,red.
SIDNEV, I.P., red.; SOLOMONIK, R.L., tekhn.red.

[The struggle of the Bolshevik party for the army during the first
World War, 1914 - March 1917] Bor'ba bol'shevitskoi partii za
armiiu v period Pervoi Mirovoi voiny, 1914 g. - mart 1917 g.)
Moskva, Voen. izd-vo M-va obor. SSSR, 1957. 162 p.   (MIRA 11:2)
(Communist Party of the Soviet Union--Party work)
(Russia--Army)

KAPSHUKOV, I.I.; UGAY, Ya.A.

Asymmetry of $K_{\alpha 1,2}$ lines of zinc in its semiconductor compounds with antimony. Fiz. tver. tela 3 no.1:100-102 Ja '61.
(MIRA 14:3)

1. Voronezhskiy gosudarstvennyy universitet.
(Zinc antimonide)